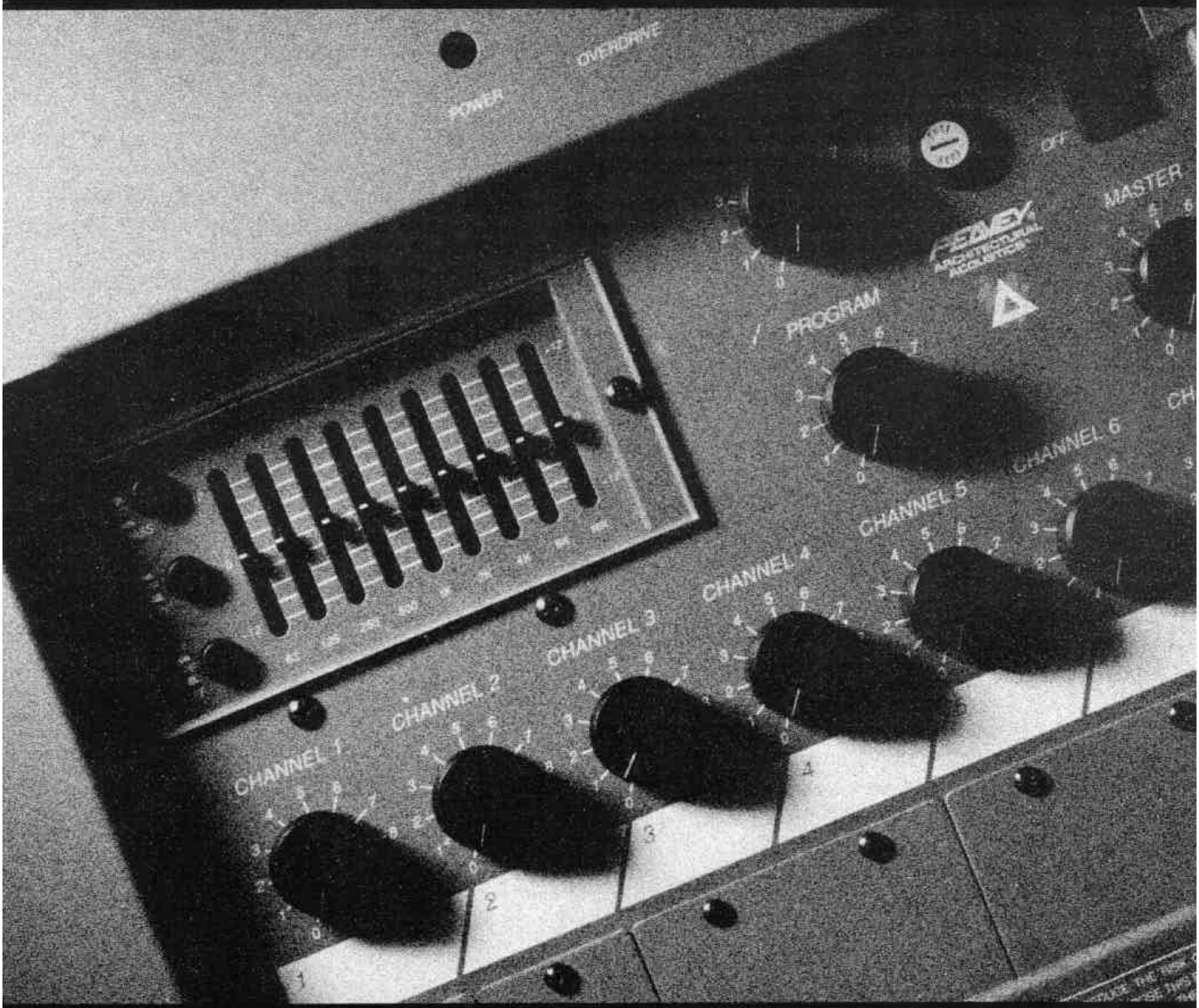
WMA™

Wall Mount Amplifier

75 and 150



installation and instruction GUIDE

Intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

Intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

CAUTION: Risks of electrical shock — DO NOT OPEN

CAUTION: To reduce the risk of electric shock, do not remove cover. No user serviceable parts inside. Refer Servicing to qualified service personnel.

Congratulations and thank you for purchasing the WMA™ 75 or WMA™ 150 wall mount amplifier.

Each unit provides unmatched application flexibility with an array of optional plug-in modules, allowing the system to be tailor-made for specialized installations.

The program input includes its own level control and is totally separate from the other seven channels. External signals may be patched in at this point as a system auxiliary input or the eighth channel. Signals appearing at this input are routed directly to the master summing amplifier stage and are mixed with signals from the other seven channels. Systems requiring a single input may use the program input (the purchase of an input module is not necessary). The program level control regulates the level of this input and the signal is routed through the system EQ controls.

The power section includes built-in SPS™ protection, which allows these units to produce full power capability without audible power amp clipping. The overdrive LED indicates SPS is active. A broad load impedance range is provided and twenty-five and seventy volt line fully isolated outputs are standard equipment. Both units are packaged as an in-wall or surface mount unit.

Features:

- 150 W RMS (WMA 150)
- 75 W RMS (WMA 75)
- 8-channel mixer/power amplifier system
- 20 Hz - 20 kHz frequency response
- Bridging input/output
- Short circuit and thermal protection
- SPS protection circuitry
- Provisions for an external volume control
- Plug-in module capability
- Output impedance variations: 4 ohm, 8 ohm, 25 V, and 70 V
- 600 ohm transformer balanced output
- Built-in 9-band one octave equalizer
- Built-in compressor
- Flush or surface mounting
- LED pilot light
- Overdrive LED indication

Hardware Provided:

One Back Box
Three 6-32x1/4" Threadforming screws
Seven 8-32x1/2" screws

Additional Hardware Required:

Four Lag screws (up to 1/4") or standard bolts for surface mounting the back box to the wall; **OR,**
Ten nails or wood screws for mounting the back box in the wall.

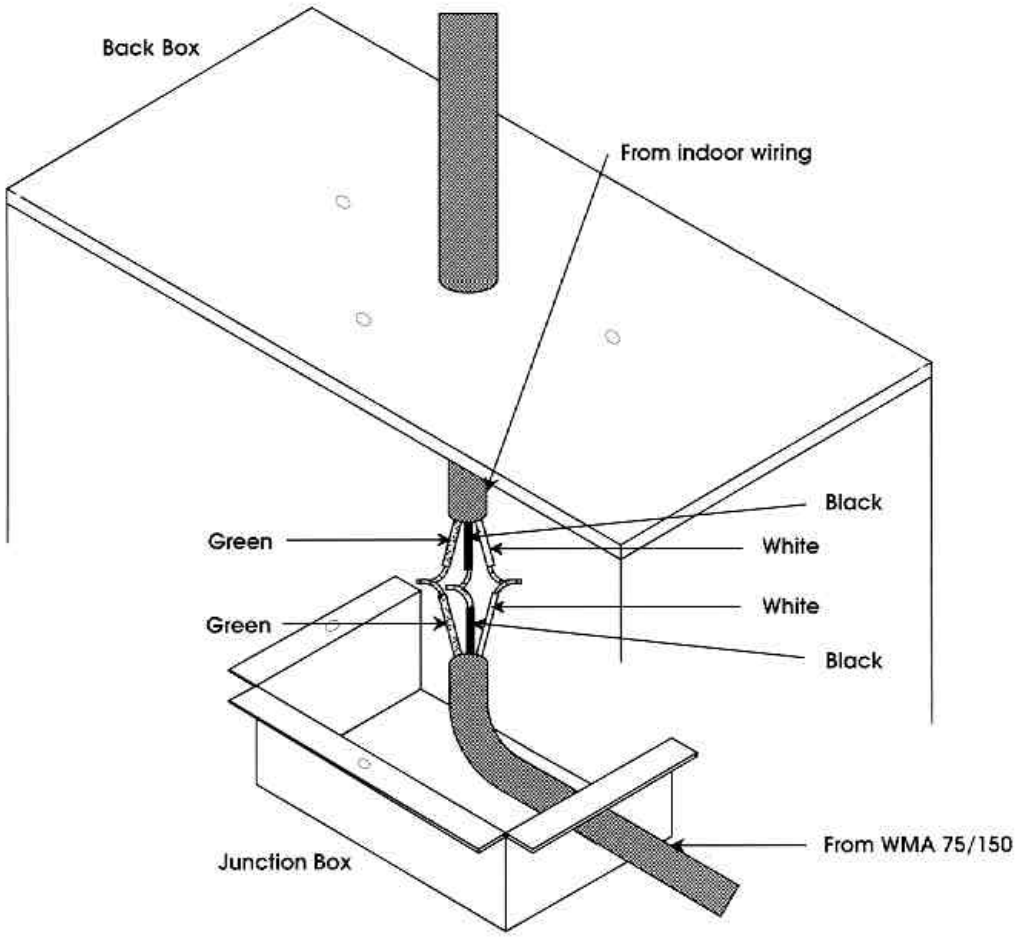
CAUTION: These installation instructions are for use by qualified personnel only. To avoid risk of fire and electric shock, do not perform any servicing other than that contained in the operating instructions. Refer all servicing to qualified service personnel.

Installation Procedure:

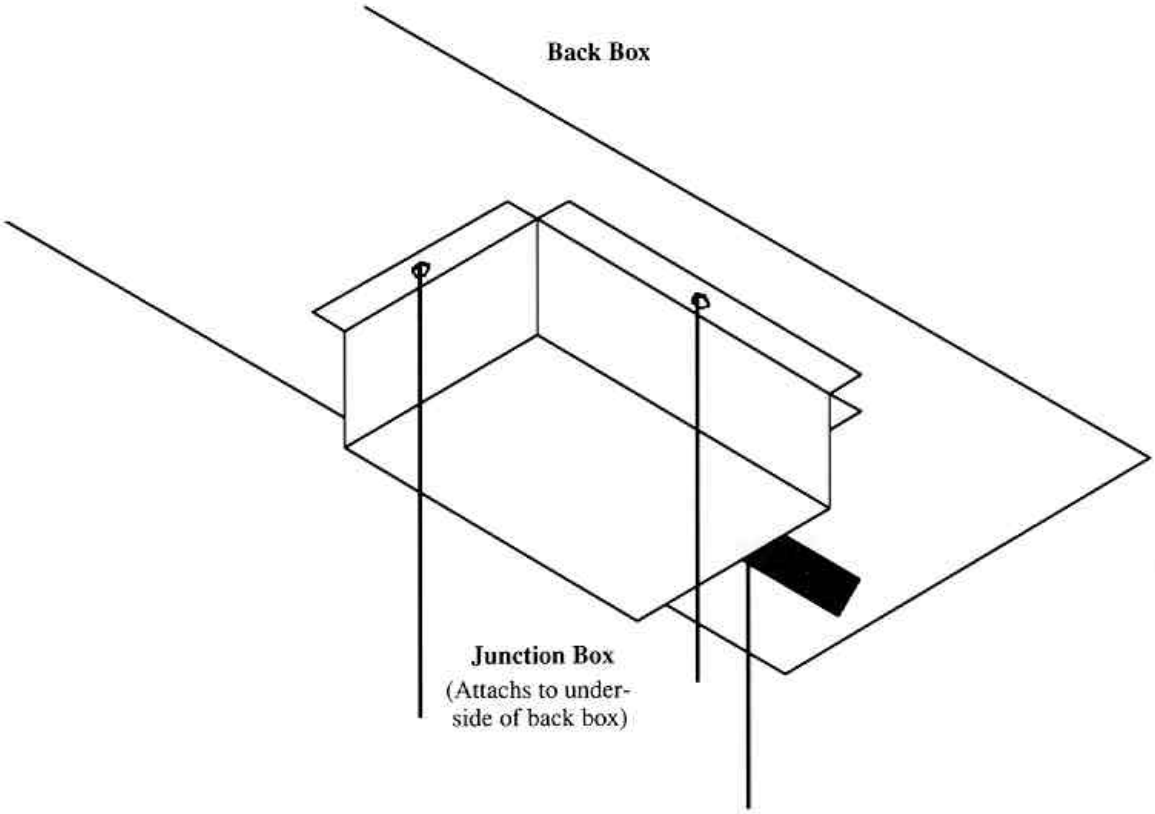
Installing this amplifier requires the back box, which is for flush mounting in any 4" wall or for surface mounting.

Install the back box BEFORE installing the amplifier.

1. Fix the amplifier to the back box by inserting the amplifier bolts into the hinges.
2. **Connecting the power cables**
   Be sure to make the proper cable connections according to color coding of the power cable. After the connection is completed, wrap with sufficient insulation and place the wires back in the junction box.



3. **Attaching the junction box to the back box**
   The junction box attaches to the back box with three 6-32 thread forming screws.



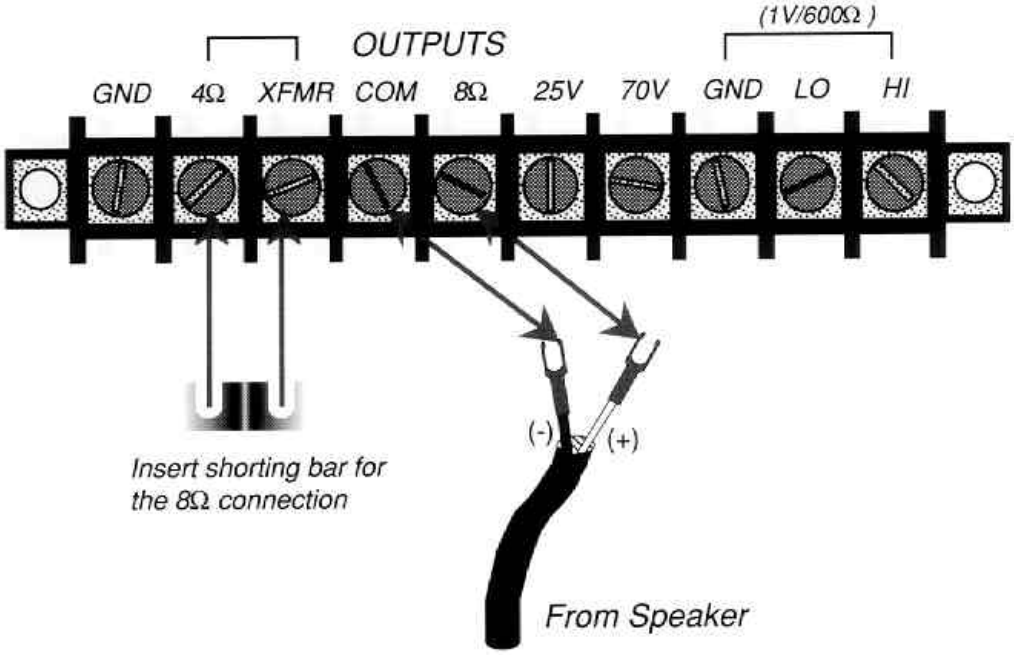
4. **Connecting the speaker cable**
   Connect the speaker cable to the speaker terminals on the junction box. The amplifier impedance may be selected at the output terminals on the front panel.

5. **Attaching the amplifier**
   Attach the amplifier to the back box with three 8-32 x 1/2" screws provided after connecting the power cable and the speaker cable.

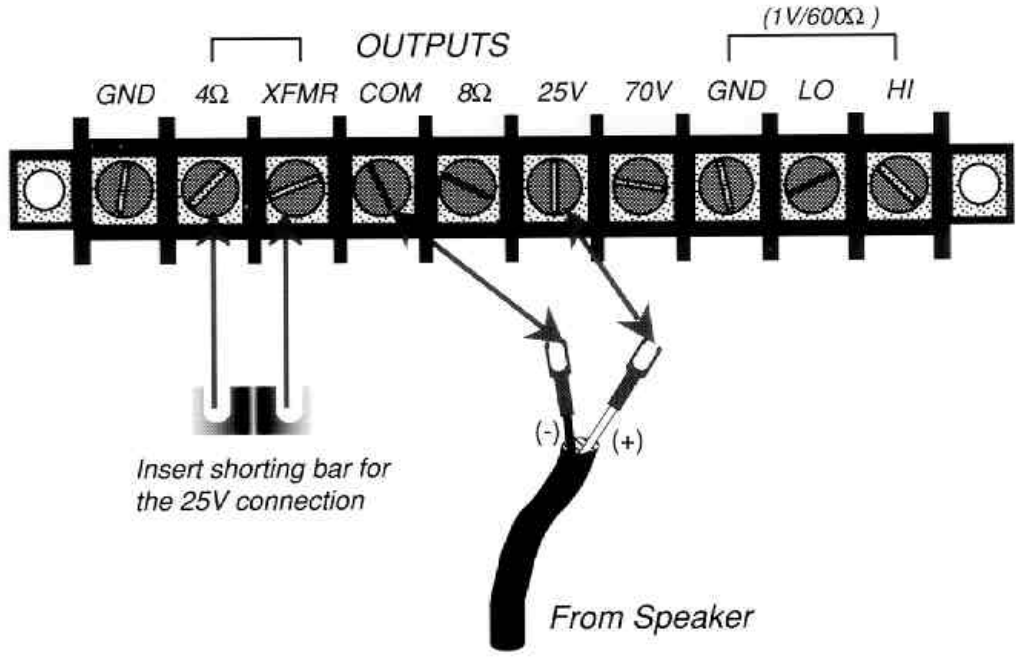
6. **Selecting output impedance**
   Select the appropriate output impedance for the speaker to be used.
   Class 2 wiring may be used.
   Since the outputs consist of 8Ω, 25 V and 70 V via the output transformer (matching transformer) and a direct output of the 4Ω, the connecting method differs in each case. The following illustrations need to be followed to ensure correct wiring.

Note: Impedances indicated imply total speaker system (load) impedances.

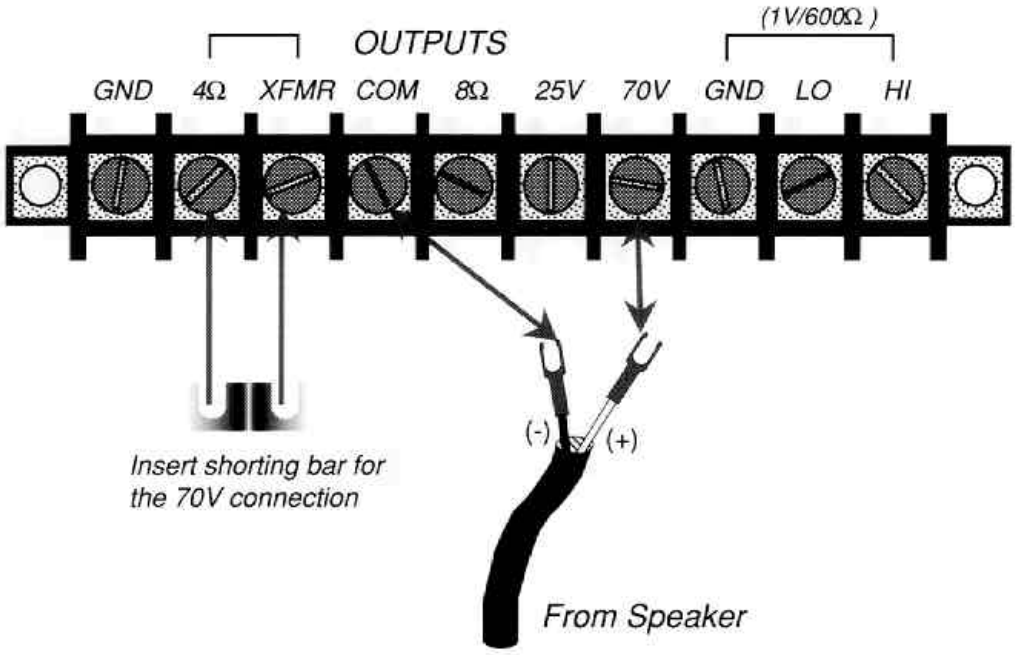
When connecting speakers to the 8Ω balanced transformer output, connect as illustrated below.



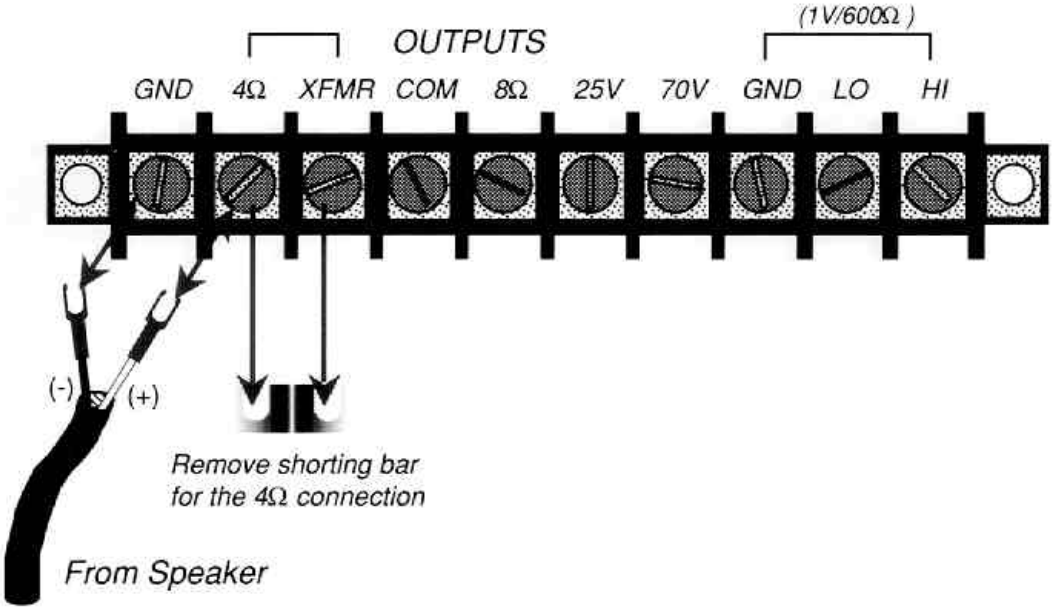
When connecting speakers to the 25 V balanced transformer output, connect as illustrated below.

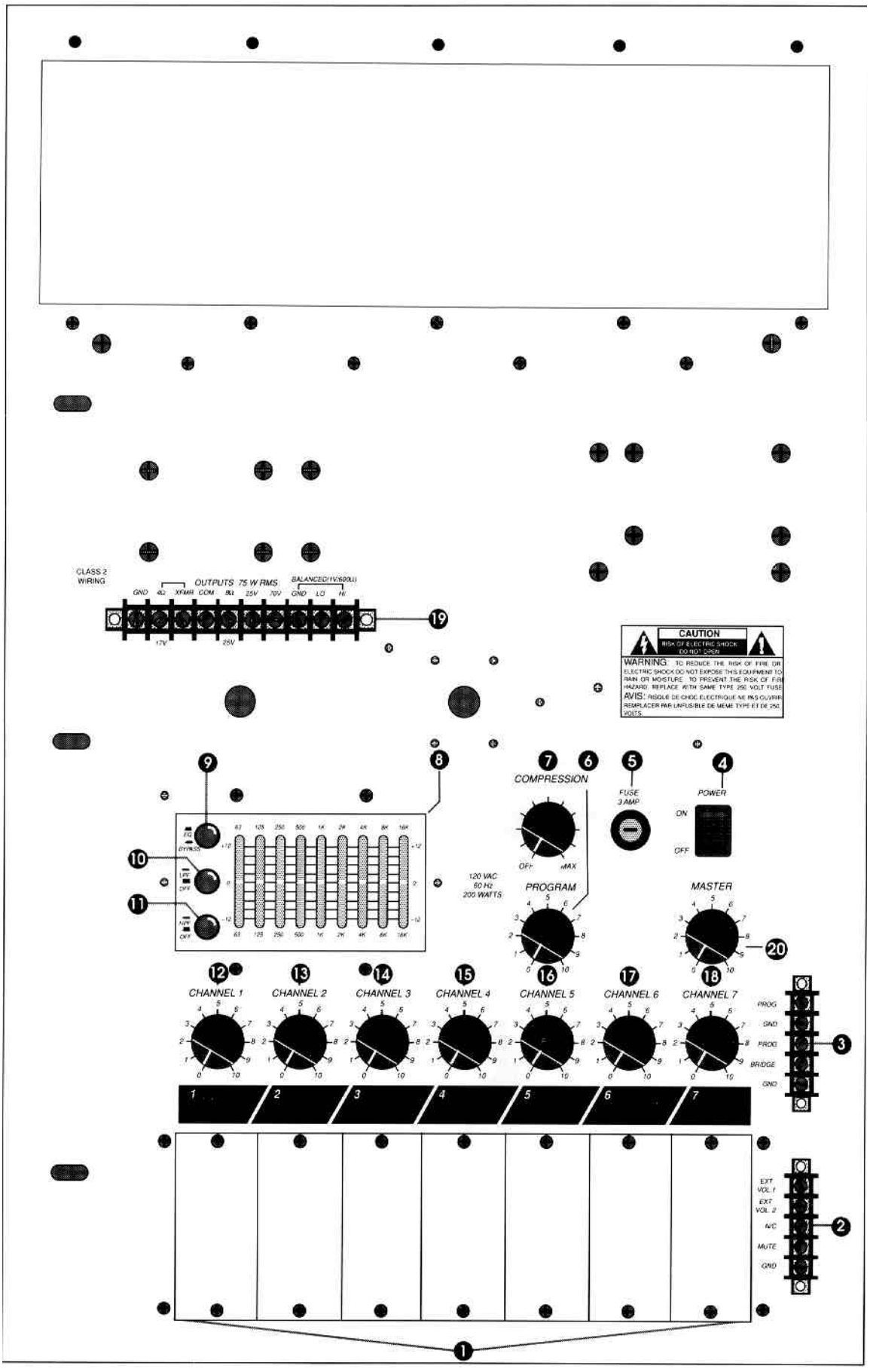


When connecting speakers to the 70 V balanced transformer output, connect as illustrated below.



When connecting speakers to the 4Ω output (unbalanced direct output), connect as illustrated below.




CLASS 2 WIRING
OUTPUTS 75 W RMS
BALANCED(70V/600Ω)
GND 4Ω XFMR COM 8Ω 25V 70V GND LO HI
17V
25V
19
CAUTION
RISK OF ELECTRIC SHOCK DO NOT OPEN
WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE. TO PREVENT THE RISK OF FIRE HAZARD, REPLACE WITH SAME TYPE 250 VOLT FUSE
AVIS: RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR. REMPLACER PAR UNFUSIBLE DE MEME TYPE ET DE 250 VOLTS
9
8
10
11
63 125 250 500 1K 2K 4K 8K 16K
+12
0
-12
EQ BYPASS
LPF OFF
TVF OFF
7
6
COMPRESSION
OFF
MAX
5
FUSE 3 AMP
4
POWER
ON
OFF
120 VAC 60 Hz 200 WATTS
PROGRAM
MASTER
20
12
13
14
15
16
17
18
CHANNEL 1
CHANNEL 2
CHANNEL 3
CHANNEL 4
CHANNEL 5
CHANNEL 6
CHANNEL 7
1 2 3 4 5 6 7
PROG
GND
PROG
BRIDGE
GND
3
EXT VOL 1
EXT VOL 2
N/C
MUTE
GND
2
1

Caution: Modules should not be inserted or removed while the amplifier is turned on.

7. **Input connections**
   The WMA 75 and WMA 150 each have seven input ports for plug-in modules. Select the module(s) desired for each application and install by sliding the module(s) between the guide rails, then secure each module with two screws. (Supplied with the module.)

Note: The WMA 75 and WMA 150 accept all industry standard plug-in modules that utilize screw terminal inputs.

Descriptions:

1. **Module Input Ports**
   The module input ports accept all industry standard screw terminal type plug in modules. All modules will operate in any of the seven ports.

Note: Modules are optional and should be selected by the installation requirements.

2. **Mute**
   Plug-in modules are available with muting. The mute line may be activated with an external switch at this point.

3. **Program Input**
   This allows you to use other input sources such as another mixer, tuner, cassette deck or CD player. Signal level at this input is controlled by the Program level control and is fed to the Master output. The *Program Input* may be regarded as channel "eight" without the plug-in module capability.

Note: This input is muted whenever the mute line is grounded.

4. **Power Switch**
5. **Fuse**
   WARNING: The fuse should only be replaced when the power cord has been disconnected from its power source. The fuse is located within the cap of the fuse holder. IT MUST BE REPLACED WITH THE SAME TYPE AND VALUE IN ORDER TO AVOID DAMAGE TO THE EQUIPMENT AND TO PREVENT VOIDING THE WARRANTY. If this unit repeatedly blows fuses, it should be taken to a qualified service repair center.
6. **Program Level Control**
   This controls the signal level at the program input.
7. **Compression**
   Provides Dynamic Range compression to limit the output level of the amplifier.
8. **9-band Equalizer**
   12 dB/octave ISO one octave graphic EQ with center frequencies at: 63, 125, 250, 500, 1k, 2k, 4k, 8k, and 16k Hz.

9. **Equalizer Bypass**
   The "in" position of this switch bypasses the 9-band equalization. The "out" position allows operation of the equalization.
10. **LPF (Low Pass Filter) Switch**
    This provides a 12 dB/octave roll-off of frequencies at or above 12 kHz. The "in" position activates the *LPF*. The "out" position defeats the *LPF*.
11. **HPF (High Pass Filter) Switch**
    This provides a 12 dB/octave roll-off of frequencies at or below 180 Hz. The "in" position activates *HPF*. The "out" position defeats the *HPF*.
12. **Channel 1 Level Control**
    This controls the signal level at the channel 1 plug-in module port.
13. **Channel 2 Level Control**
    This controls the signal level at the channel 2 plug-in module port.
14. **Channel 3 Level Control**
    This controls the signal level at the channel 3 plug-in module port.
15. **Channel 4 Level Control**
    This controls the signal level at the channel 4 plug-in module port.
16. **Channel 5 Level Control**
    This controls the signal level at the channel 5 plug-in module port.
17. **Channel 6 Level Control**
    This controls the signal level at the channel 6 plug-in module port.
18. **Channel 7 Level Control**
    This controls the signal level at the channel 7 plug-in module port.
19. **Outputs**
    A direct output as well as several transformer balanced outputs are provided to allow the proper interface between the amplifier and the speaker system. The direct output allows direct connection to a 4 ohm speaker system. To use this output, disconnect the jumper between the OUT terminal and the XFMR terminal. Connect the speaker (or speakers) from the GND terminal to the 4 ohm terminal. 8 ohm, 25 volt, and 70 volt outputs are also provided. To use these outputs, the jumper between 4Ω and XFMR must be installed. For 8 ohm speaker systems, connect between the COM terminal and the 8 ohm output. 25 volt and 70 volt outputs are also provided for "constant voltage" speaker distribution systems. The 25 volt connection is between the COM terminal and the 25 V terminal. The 70 volt connection is between the COM terminal and the 70 V terminal.
20. **Master Level Control**
    This controls the overall level of the mixer amplifier.

Specifications

Type	Wall mounting 8-channel mixer power amplifier
Output Power	75 watts RMS (WMA 75) 150 watts RMS (WMA 150)
Power Bandwidth	20 Hz to 20 kHz, <0.5% THD (Direct) 50 Hz to 20 kHz, <0.5% THD (Transformer)
Frequency Response	20 Hz to 20 kHz +/-1 dB (Direct) 20 Hz to 20 kHz +/-3 dB (Transformer)
Total Harmonic Distortion	0.05% at 1 kHz, rated power
Signal to Noise Ratio	Master volume minimum: 95 dB Master volume maximum: 77 dB
Inputs	Seven input ports, one dedicated program input, one bridge input/output
Input Sensitivity	
Ports 1-7 and Program input:	100 mV @ 10k ohms
Bridge input/output:	100 mV @ 3.3k ohms
Outputs	
Direct output (unbalanced):	4 ohms
Transformer outputs (balanced):	8 ohms, 25 volts, 70 volts, 1 V rms @ 600 ohms
Output Regulation (1 kHz)	<0.5 dB (Direct) <1.0 dB (Transformer)
Equalization	
9-band ISO one octave graphic equalizer	
Center frequencies:	63, 125, 250, 500, 1k, 2k, 4k, 8k, 16kHz
Equalizer Range:	+/-12 dB/octave
Filters	
High pass:	180 Hz, 12 dB/octave
Low pass:	7 kHz, 12 dB/octave
Controls	8 input gain controls, 1 master gain control, 1 power switch, 1 EQ defeat switch, 1 HP filter switch, 1 LP filter switch, 9 EQ controls, 1 compression control
Indicators	1 power LED (red) 1 overload/compression LED (yellow)
Protection	Internal current limiting, built-in SPS™, output relays, 1 line fuse (external), 2 internal fuses

Connectors	
Bridge input/output, Program in, Mute, external volume control:	screw terminals
Ports 1-7:	card edge connectors
Outputs:	screw terminals
AC Power:	SJT, 3 conductor
Power Consumption	AC 120 volts, 60Hz, 200 watts
Dimensions in inches width x height x depth	$14\ ^{13}/_{32}$" x $25\ ^{13}/_{32}$" x $4\ ^{7}/_{8}$"
Color	Gray
Standard Accessories	Module Bay covers
Other Features	Output disconnected for 4 seconds after power turn on. Muting accomplished either externally or with optional modules.

DANGER

EXPOSURE TO EXTREMELY HIGH NOISE LEVELS MAY CAUSE A PERMANENT HEARING LOSS. INDIVIDUALS VARY CONSIDERABLY IN SUSCEPTIBILITY TO NOISE INDUCED HEARING LOSS, BUT NEARLY EVERYONE WILL LOSE SOME HEARING IF EXPOSED TO SUFFICIENTLY INTENSE NOISE FOR A SUFFICIENT TIME.
THE U.S. GOVERNMENT'S OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) HAS SPECIFIED THE FOLLOWING PERMISSIBLE NOISE LEVEL EXPOSURES:

DURATION PER DAY IN HOURS	SOUND LEVEL dBA, SLOW RESPONSE
8	90
6	92
4	95
3	97
2	100
1½	102
1	105
½	110
¼ or less	115

ACCORDING TO OSHA, ANY EXPOSURE IN EXCESS OF THE ABOVE PERMISSIBLE LIMITS COULD RESULT IN SOME HEARING LOSS.
EAR PLUGS OR PROTECTORS IN THE EAR CANALS OR OVER THE EARS MUST BE WORE WHEN OPERATING THIS AMPLIFICATION SYSTEM IN ORDER TO PREVENT A PERMANENT HEARING LOSS IF EXPOSURE IS IN EXCESS OF THE LIMITS AS SET FORTH ABOVE. TO INSURE AGAINST POTENTIALLY DANGEROUS EXPOSURE TO HIGH SOUND PRESSURE LEVELS, IT IS RECOMMENDED THAT ALL PERSONS EXPOSED TO EQUIPMENT CAPABLE OF PRODUCING HIGH SOUND PRESSURE LEVELS SUCH AS THIS AMPLIFICATION SYSTEM BE PROTECTED BY HEARING PROTECTORS WHILE THIS UNIT IS IN OPERATION.

CAUTION

THIS AMPLIFIER HAS BEEN DESIGNED AND CONSTRUCTED TO PROVIDE ADEQUATE POWER RESERVE FOR PLAYING MODERN MUSIC WHICH MAY REQUIRE OCCASIONAL PEAK POWER. TO HANDLE OCCASIONAL PEAK POWER, ADEQUATE POWER "HEADROOM" HAS BEEN DESIGNED INTO THIS SYSTEM. EXTENDED OPERATION AT ABSOLUTE MAXIMUM POWER LEVELS IS NOT RECOMMENDED SINCE THIS COULD DAMAGE THE ASSOCIATED LOUDSPEAKER SYSTEM. PLEASE BE AWARE THAT **MAXIMUM POWER** CAN BE OBTAINED WITH VERY LOW SETTINGS OF THE **GAIN** CONTROLS IF THE INPUT SIGNAL IS VERY STRONG.

1. Read all safety and operating instructions before using this product.
2. All safety and operating instructions should be retained for future reference.
3. Obey all cautions in the operating instructions and on the back of the unit.
4. All operating instructions should be followed.
5. This product should not be used near water, i.e. a bathtub, sink, swimming pool, wet basement, etc.
6. This product should be located so that its position does not interfere with its proper ventilation. It should not be placed flat against a wall or placed in a built-in enclosure that will impede the flow of cooling air.
7. This product should not be placed near a source of heat such as a stove, radiator or another heat producing amplifier.
8. Connect only to a power supply of the type marked on the unit adjacent to the power supply cord.
9. Never break off the ground pin on the power supply cord. For more information on grounding write for our free booklet "Shock Hazard and Grounding."
10. Power supply cords should always be handled carefully. Never walk or place equipment on power supply cords. Periodically check cords for cuts or signs of stress, especially at the plug and the point where the cord exits the unit.
11. The power supply cord should be unplugged when the unit is to be unused for long periods of time.
12. If this product is to be mounted in an equipment rack, rear support should be provided.
13. Metal parts can be cleaned with a damp rag. The vinyl covering used on some units can be cleaned with a damp rag, or an ammonia based household cleaner if necessary.
14. Care should be taken so that objects do not fall and liquids are not spilled into the unit through the ventilation holes or any other openings.
15. This unit should be checked by a qualified service technician if:
    A. The power supply cord or plug has been damaged.
    B. Anything has fallen or been spilled into the unit.
    C. The unit does not operate correctly.
    D. The unit has been dropped or the enclosure damaged.
16. The user should not to attempt to service this equipment. All service work should be done by a qualified service technician.

LIMITED WARRANTY

Peavey Electronics Corporation warrants to the original purchaser of this new Architectural Acoustics product that it is free from defects in material and workmanship. If within one (1) year from date of purchase a properly installed product proves to be defective and Peavey is notified, Peavey will repair or replace it at no charge. (Note: Batteries and patch cords not covered.) "Original purchaser" means the customer for whom the product is originally installed.

Damage resulting from improper installation, interconnection of a unit or system of another manufacturer, accident or unreasonable use, neglect or any other cause not arising from defects in material and workmanship is not covered by this warranty. The warranty is valid only as to products purchased and installed in the United States.

THIS LIMITED WARRANTY IS IN LIEU OF ANY AND ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR USE. UNDER NO CIRCUMSTANCES WILL PEAVEY BE LIABLE FOR ANY LOST PROFITS, LOST SAVINGS, INCIDENTAL DAMAGES OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PRODUCT, EVEN IF PEAVEY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. THIS LIMITED WARRANTY IS THE ONLY EXPRESSED WARRANTY ON THIS PRODUCT, AND NO OTHER STATEMENT, REPRESENTATION, WARRANTY, OR AGREEMENT BY ANY PERSON SHALL BE VALID OR BINDING UPON PEAVEY.

Peavey's liability to the original purchaser for damages for any cause whatsoever and regardless of the form of action, is limited to the actual damages up to the greater of Five Hundred Dollars ($500) or an amount equal to the purchase price of the product that caused the damage or that is the subject of or is directly related to the cause of action. This limitation of liability will not apply to claims for personal injury or damage to real property or tangible personal property allegedly caused by Peavey's negligence. For information on service under this warranty, call a Peavey customer service representative at (601) 483-5376.

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